

REMARKS

In the amendments above, Claims 1, 19, 29, 30, 32, and 36 have been amended, and Claim 16 has been cancelled, to more particularly point out and distinctly claim Applicants' invention.

The disclosure has been objected to because of the certain informalities. The Examiner's attention is directed to the amendments above.

Claim 19 has been objected to because of the certain informalities. The Examiner's attention is directed to the amendments above.

Claims 29 and 36 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner's attention is directed to the amendments above.

Claim 1-7, 10, 11, 14, 17, 18, and 36 have been rejected under 35 U.S.C. §102(e) as being anticipated by Schreck, U.S. Patent No. 6,454,799 ("Schreck"). The Examiner maintains that Schreck discloses in Figures 1-3, lines 16-65, of Col. 6, and lines 33-63 of col. 7 a tricuspid heart valve comprising annular stent 24, equidistantly spaced rigid support beams 42 with bores 56, 80 for stitching, and leaflets 32 of biological tissue or synthetic polymers (PET).

Claims 8, 33, and 34 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Schreck as applied to Claim 1 above and in further view of Boretos et al., U.S. Patent No. 4,265,694 ("Boretos") or Wheatley et al., U.S. Patent No. 6,171,335

("Wheatley"). The Examiner maintains that Schreck meets the structural limitations of Claims 8, 33, and 34, as described above, but lacks the express written disclosure of using polyurethane for the leaflets (Claims 8, 33) or for the support beams (Claim 34); that both Boretos (see abstract) and Wheatley (lines 48-51 of Col. 2 and lines 23-29 of Col. 3) teach heart valves comprising posts and leaflets made from polyurethane in order to provide a biocompatible implant; and that, therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the valve disclosed by Schreck by using polyurethane for the leaflets and support beams, as taught by Boretos and Wheatley to provide a biocompatible implant.

Claims 9, 25 and, 26 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Schreck as applied to Claim 1 above and in further view of Bessler et al., U.S. Patent No. 5,855,601 ("Bessler"). The Examiner maintains that Schreck meets the structural limitations of Claims 9, 25, and 26, as described above, but lacks the express written disclosure of using nickel-titanium for the stent and the particular ranges of diameters; that valve Bessler teaches in lines 3-18 of Col. 6 a heart valve having a self expanding nickel titanium stent having initial diameter of about 4 mm and would be capable of expanding to about 25 mm in order to provide a biocompatible means of securement; and that, therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the valve disclosed by Schreck by using nickel-titanium alloys and the particular diameters for the stent, as taught by Bessler to provide a biocompatible means of securement for the heart valve.

Claim 12 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Schreck as applied to Claim 1 above and in further view of Ogle et al., U.S. Patent No. 6,468,660 (“Ogle”). The Examiner maintains that Schreck meets the structural limitations of Claim 12, as described above, but lacks the express written disclosure of using chemical adhesives to attach the support beams; that Ogle teaches in lines 10-20 of Col. 10 a chemical adhesive for heart valve supporting structure in order to securely bond parts during manufacture; and that, therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the valve disclosed by Schreck by using chemical adhesives, as taught by Ogle to securely bond parts during manufacture.

Claims 21 and 22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Schreck as applied to Claim 1 above and in further view of Rosen, U.S. Patent No. 4,345,340 (“Rosen”). The Examiner maintains that Schreck meets the structural limitations of Claims 21 and 22, as described above, but lacks the express written disclosure of employing radiopaque markers on the valve; that Rosen teaches in lines 19-31 of Col. 2 the use of radiopaque markers on a heart valve in order to assist implantation; and that, therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the valve disclosed by Schreck by including radiopaques markers, as taught by Rosen to assist the implantation procedure.

Claim 35 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Schreck in view of Boretos or Wheatley as applied to Claim 33 above, and in further view of Ogle. The Examiner maintains that Schreck in view of Boretos or Wheatley meets the structural limitations of Claim 35, as described above, but lacks the express written disclosure of using chemical adhesives to attach the support beams; that Ogle teaches in

lines 10-20 of Col. 10 a chemical adhesive for heart valve supporting structure to securely bond parts during manufacture; are that, therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the valve disclosed by Schreck by using chemical adhesives, as taught by Ogle et al., in order to securely bond parts during manufacture.

Claims 16, 19, 20, and 30 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 29 has been indicated as being allowable if rewritten to overcome the rejection(s) under 35 U.S.C §112, second paragraph, set forth in this Office Action and to include all of the limitations of the base claim and any intervening claims.

In the amendments above, the limitation of Claim 16, indicated as being allowable, has been inserted into Claim 1, and the language of Claim 1 has been inserted into Claim 29. Therefore, the rejections of Claims 1-12, 14, 15, 17-22, 25, 26, 29, and 30 are believed to have been overcome.

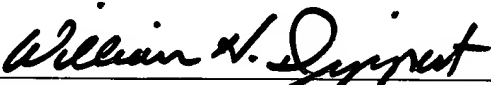
With respect to Claims 33-36, Applicants respectfully request that the Examiner reconsider the rejections of these claims. Applicants believe that the devices claimed herein are structurally distinct from the device of Schreck that neither Schreck nor any of Boretos, Wheatley, Bessler, Ogle, and/or Rosen combined with Schreck should be considered to disclose or suggest the embodiments of Applicants' invention as set forth in these claims.

Reconsideration and allowance of the claims herein are respectfully requested.

In the event that the claims herein are allowable but for minor matters that could be the subject of a supplemental submission or an Examiner's Amendment, Applicants would appreciate the Examiner's contacting Applicants' undersigned attorney.

Respectfully submitted,

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